Parts List and

MODEL **58BD & 58BW**

Portable/Convertible Manual Bandsaw

Built better to work stronger and last longer

Operating & Maintenance Manual

REV 131109

Wellsaw®
Made In The USA
Quality Metal Cutting Bandsaws
2829 N. Burdick St. Kalamazoo, MI 49004
Phone: 269-345-1132 Fax: 269-345-0095
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Index

Specifications 2
Warranty Info 2
Safety Instructions 3
Operation & Maintenance 5
Recommended Service Kit 7

Parts Drawings & Parts Lists
Bed & Leg 8-9
Wheel & Frame 10-11
Blade Guide & Gear Box 12-13
Coolant, Switch & DashPot 14-15
Service Parts Changes (Before Serial # 22020) 16
Switch Box Assembly 16
Trouble Shooting 17
Electrical Schematic 18

Wellsaw® Select-O-Chart 20-21

Specifications

Horizontal Capacity

Rectangular	9.5” H x 11”W
Round	9.5”Diameter
Flat	12”
45 Degree Angle	5-1/2”H x 5-1/2”W

Vertical Capacity

Work Table	8” x “10
Throat Height	9-1/2”
Throat Depth	6-1/4”
Speeds, FPM	76, 141, 268
Blade Size	1/2” x .025” x 7’-9” (93”)
Motor	1/2 HP
Bed Width	8-1/2”
Floor to top of bed	26”
Floor space	26” x 54”
Height (Frame Vertical)	55-3/4”
Height (Frame Horizontal)	42-3/4”
Approximate Shipping Weight, 58BD	350 lbs
Aproximate Shipping Weight, 58BW	365 lbs.

Additional blades available:
6, 10, 14, 18 & 24 teeth per inch

Full Year Limited Warranty

This WELLSAW is warranted against defects in material or workmanship installed or performed at the factory. Within one year fro, date of purchase, we will free of charge and at our option, either repair or replace any part of this WELLSAW which our examination discloses to be defective because of workmanship or a defect in the material. This warranty does not apply if this WELLSAW has been used in a manner not consistent with its’ design or which has been subject to accident, alteration, abuse or misuse or which fails due to lack of care or is the result of inadequate power supply and specifically does not apply to normal wear parts. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION OF THE FACE HEREOF.

WELLSAW shall not be liable for consequential or incidental damages suffered or incurred with respect to defective materials or workmanship.

We do not authorize any person or representative to make any other warranty or to assume for us any liability in connection with the sale of our products other than those contained herein. Any agreements outside of or contradictory to the foregoing shall be void and of no effect.

All transportation costs on products or parts submitted to WELLSAW under this warranty must be paid by the user. No products or parts are to be returned without first obtaining permission

For Your Convenience

When contacting your WELLSAW supplier or the Company for parts or service, it is helpful to have both your saw Serial Number and Purchase Date available. Jot them down her for handy reference.

Serial Number: _____

Purchase Date: _____

SAFETY INSTRUCTIONS
Know your machine, its safe and proper use!

DISCONNECT POWER before adjusting or servicing the saw or changing a blade.

STAY CLEAR of all moving parts. Keep hands and fingers away form the saw blade.

WHEN MOVING SAW, with hinged frame (saw head), secure the head in its down position.

WHEN CUTTING MAGNESIUM, take special precautions. Use a sharp saw blade, make only dry cuts, prevent chip accumulation, and keep fire-fighting equipment nearby.

THIS SAW SHOULD BE GROUNDED WHILE IN USE TO PROTECT THE OPERATOR FROM ELECTRICAL SHOCK.

CORD CONNECTED TOOLS. If the saw is equipped with an approved 3-conductor cord and a 3-prong grounding type plug, it should only be connected to a properly equipped and grounded receptacle. The green conductor in the cord is the grounding wire. Never connect the green wire to a live terminal.

Use only a 3-wire extension cord having a 3-pronged receptacle, a 3-pronged plug and ample amperage rating. Replace or repair a damaged or worn cord immediately.

PERMANENTLY CONNECTED TOOLS. The saw should be connected to a grounded, metal-enclosed wiring system or an equipment-grounding conductor should be run with the circuit conductors and connected to the saw's grounding terminal or lead.

To reset the manual starter after a power interruption, return the switch to OFF and press the RESET button before restarting.

FOR ALL TOOLS

KEEP GUARD IN PLACE and in working order.

REMOVE ADJUSTING KEYS AND WRENCHES. Form a habit. Check to see that all keys and wrenches are removed from the tool before turning the tool on.

KEEP WORK AREA CLEAN. Cluttered areas and benched invite accidents.

AVOID DANGEROUS ENVIRONMENT. Do not use power tools in damp or wet locations. Keep your work area well lighted.

KEEP CHILDREN AWAY. All visitors should be kept a safe distance from work area.

MAKE WORKSHOP KID-PROOF with padlocks, master switches, or by removing starter keys form tools.

DON'T FORCE TOOL. It will do the job better and safer at the rate for which it is designed

USE RIGHT TOOL. Don't use a tool a or attachment to do a job for which it was not designed.

WEAR PROPER APPAREL. No loose clothing or jewelry to get caught in moving parts. Rubber-soled footwear is recommended for best footing.

USE SAFETY GLASSES. Also use face or dust mask if operation is dusty.

SECURE WORK. Use clamps or a vise to hold work. Provide adequate support to prevent injury from falling work pieces.

DON'T OVER REACH. Keep proper footing and balance at all times.

MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

DISCONNECT TOOLS before servicing or when changing accessories such as blades, bits, cutters, etc.

AVOID ACCIDENTAL STARTING. Make sure the switch is in OFF position before connecting power tools.

USE ONLY RECOMMENDED ACCESSORIES. Consult the owner's manual for recommended accessories. The use of improper accessories may be hazardous.

NEVER STAND ON A TOOL. Serious injury can occur if the tool is tipped or the cutting tool is accidentally contacted.

CHECK DAMAGED PARTS. Before further use of the tool, a guard, or other part that is damaged, should be carefully checked to ensure that it will operate properly and performed its intended function. Check for alignment of moving parts, breakage, mounting and any other condition that may affect the tool's proper operation. Any guard or part that is damaged should be properly repaired or replaced.

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This excerpt from a survey report does not necessarily reflect the views and policies of OSHA however it is presented for your consideration in maintaining workplace safety.

From

"Machine Guarding - Assessment of Need"

HEW publication No. (OSHA) 75-173

SUMMARY:

The previous information discussed specific machines and their inherent characteristics and hazards. All machines, however, require proper power installation and maintenance. High-speed, rotating cutting tools must be properly sharpened and well balanced to eliminate vibration. Saw blades must be properly sharpened and set to eliminate binding and ensure clean cuts. Any cutting tool that is cracked or chipped must be discarded.

The work area should be neat, well lighted, properly ventilated and free of pedestrian or vehicle traffic. Ample room is needed for stock handling and storage, the floors must be free of slipping or tripping hazards as many machines have exposed tooling that can be fallen on.

These items, though they are not specific machine guard needs, are equally important.

It is also interesting to note that operators observed and questioned by the survey representatives and employed on some woodworking and metalworking equipment are often new hires with little or no experience with machine operation. This is substantiated by the finding that proper training programs are almost absent from industry (Field Supplement, page 8) and by the fact that the highest percentage of accidents occurs at a young age (see Field Survey Supplement, page 8). The best example of this is with operators of saws where the operation seems self-explanatory through observation. Perhaps the operation is basically simple; nevertheless, operators should be carefully trained and enthusiastically motivated to perform safely.

A final observation found through field surveys has to do with the size of the company versus the number of unguarded machines (see Field Survey Supplement, page 2). The smaller the company in number of employees, the larger the percentage of unguarded machines observed. This illustrates a further need for machine guards.

The age of the operator, the size of the company, and the lack of training programs, along with the investigation of specific machines to identify inherent hazards, establishes a definite need for machine guarding. The fact that a hazard exists and a worker performs in proximity to that hazard will undoubtedly result in an injury. Because of this, the use of machine guards to divorce the operator from the hazard to the highest possible degree is not only desirable but needed. It is the moral responsibility of the employer and expected benefit to the employee to be able to manufacture goods without occupational injuries.

Operation & Maintenance

READ CAREFULLY

The MODEL 58B METAL CUTTING BAND SAW is designed for efficient performance. With proper care, it will give you many years of dependable service. **READ THIS MANUAL CAREFULLY BEFORE OPERATING YOUR NEW SAW**.

After final assembly, each saw is inspected and tested. No adjustment should be needed.

This manual has been prepared to assist you in the operation and maintenance of your new saw. If you desire additional information or assistance, please contact your dealer's service representative.

INSTALLATION

Uncrate and check all parts. Report any damage to your carrier and file a Proof of Loss Claim with the carrier.

Be sure motor specifications correspond with your power source.

Place the saw so that each leg is carrying its share of the load. The 58B Saw can be operated horizontally and vertically. For vertical operation. place frame in upright position, attach the vertical work table and, operate switch manually.

OPERATION

Do not apply too much feed rate. Start cut carefully and the new blade will last much longer. Make sure all four legs are in solid contact with the floor. Keep blade guide as close to the work as possible.

PLACING BLADE ON SAW

1a. **DRY CUTTING MACHINE.** Release from safety latch bar and swing frame into vertical position.
1b. **MACHINE WITH WET CUTTING SYSTEM**. Remove chip pan, then follow instructions in 1a.
2. Open idler wheel hinged guard.
3. Remove blade guard.
4. Turn blade tension wing screw to lower the idler wheel and slide block assembly.
5. Uncoil a 1/2" x 93" blade.
6. When facing cut-off side of machine, blade must travel toward the motor end.
7. Be sure blade teeth point in this direction. If not, twist blade band inside-out.
8. Install blade as follows:
   a. Place blade between guide bearings and brushes.
   b. Insert blade into slot between frame and guard.
   c. Slide blade onto the drive and idler wheels.
   d. Turn tension wing screw until blade is taut.
9. Briefly start and stop motor a few times to make sure blade is riding correctly on band wheels, then tighten blade to proper operating tension.
10. Replace blade guard.
11. Lower frame for horizontal cutting.
12. Check safety bar. Be sure it is in proper position to prevent frame from being raised beyond maximum position when used as a horizontal cutt-off saw.

QUICK ACTION VISE

The sliding vise jaw is equipped with a ratchet dog arm for quick action and a hand wheel for tightening work in the vise. Excessive pressure is not required to hold material securely in the vise.

FIXED JAW VISE

Two pins in the fixed vise jaw assist in the quick relocation of the fixed vise jaw for 90° cutting. For final and accurate adjustment, the blade should be squared with the vise jaw by placing machinist's square head lightly against the side of the blade and the squares blade against the machined face of the vise jaw.

NOTE: These pins must be removed before fixed vise jaw can be turned. For angle cutting, use the clamp bolts to hold fixed vise jaw.

Loosen sliding vise jaw and push against fixed jaw vise jaw, then cap screw tightened, leaving vise jaws parallel.

MAXIMUM VISE CAPACITY & 45° ANGLE ADJUSTMENT

1. Remove blade brush assembly from blade guide arm.
2. Remove the two 5/16" cap screws holding guide arm to the frame.
3. Move guide arm back to the next two holes. Replace cap screws and tighten in place.
4. Remove vise jaw pins in fixed vise.
5. Remove 1/2" cap screw from quadrant.
6. Loosen cap screw in center of vise jaw and slide vise toward motor end of machine about 2-1/4".
7. Replace 1/2" cap screw in tapped holes and tighten lightly.
8. With saw frame in cut-off position, place head of machinist's square lightly against slot in bed with the blade of square against machined face of vise jaw. Tap lightly with lead hammer until vise jaw is parallel to blade of square. Tighten cap screws. Use a protractor for angle adjustment.

DASH POT

Wellsaws are equipped with a dash pot (frame check) to stabilize the downward travel of the saw frame to protect the saw blade from damage. The action is hydraulic. The flow of fluid being bypassed through an orifice controls the downward stroke of the saw frame.

Fill the dash pot to within 1" of top of the bottom of cylinder with Cities Service "Amplex 05" Hydraulic Oil or equivalent.

FRAME WEIGHT ADJUSTMENT

The position of the collar in relation to the spring on the dash pot acts as the frame weight adjustment.

The proper frame weight is approximately 10 lbs. and is obtained by positioning the collar 3-3/4" down from the top edge of the *upper* cylinder to the top edge of the collar. For less frame weight, loosen collar and move downward toward tension spring. Reverse procedure for more frame weight.

Too much frame weight will cause the blade to cut crookedly.

SWITCH AND MOTOR

This saw is equipped with a start-stop switch that automatically shuts off the motor at the completion of a cut when the wheel guard contacts the switch control lever to the desired position for proper shut-off.

It is necessary to raise the saw frame clear of the switch control lever before the saw can be started.

Thermal overload protection is provided in the motor. Should the motor stop for other than normal reasons, it may be due to overload. After the problem has been corrected, the motor may be reset by following the instructions on the motor name plate.

SPEED SELECTION

Saws are equipped with step pulleys that provide three speeds: 76, 141 and 268 blade feet-per-minute. Change blade speed by loosening wing screw close to the motor pivot. Place belt in desired position, tighten wing screw until belt is snug and lock wing screw with wing nut.

FAST speed to cut thin-wall metal, tubing, thin brass or any metal that will not burn teeth.

MEDIUM speed on general cutting such as cold rolled machine steels or any metals which require a slow speed on a lathe.

Use beeswax when cutting brass. Brass should always be cut with a new blade. If teeth wear unusually fast, use slower speed. Always keep the blade in proper tension.

MAINTENANCE

BEFORE MAKING ANY ADJUSTMENTS, ALWAYS TRY A NEW BLADE TO MAKE SURE THE CAUSE OF THE PROBLEM IS NOT A WORN BLADE.

Blade guides are provided to hold the blade in both horizontal and vertical alignment.

Accuracy of cut depends on proper adjustment of the blade bearings. Check their condition for wear or a tendency to stick. When the blade is moved sideways or with a twisting action, the movement should stop at the bearings and not be transferred beyond this point.

An eccentric axle is provided on each blade guide. By rotating this axle, the bearing is drawn away from the blade.

WHEEL PITCH ADJUSTMENT

If the blade runs too low on wheels, it may be because of too much blade tension. Loosen the blade by turning the "T" handle (10) counterclockwise (CCW). The blade must be reasonably tight.

If this adjustment does not correct the problem, adjust the wheel pitch. Usually, adjusting the idler wheel will correct the problem. However, if it doesn't, both idler and drive wheels will have to be adjusted as follows:

1. Loosen blade tension until the blade is slack by turning the "T" handle CCW.
2. Raise the frame into the vertical position. See Diagram.
3. Loosen 2 cap screws 7A and 7B 1/2 turn.. Then tighten 2 cap screws 7C and 7D 1/2 turn.
4. Tighten blade by turning "T" handle CW. If the blade then runs in proper position on both wheels, no further adjustment is necessary.

If the blade runs back to the flange of the idler wheel and not on the drive wheel, make the following adjustment:

1. Loosen the 2 cap screws, 22E and 22F, at the motor end of the wheel plate.
2. Tighten the 2 Allen screws, 22G and 22H, about 1/2 turn.
3. Tighten all four cap screws.
4. Start the motor to see if the blade runs back to the flange of the wheel.

CAUTION: Too much pitch will wear the wheel flanges and roll over the back of the blade! This problem can usually be determined by the noise of the blade rubbing against the flange. To check further, place a piece of paper between the blade and the wheel. Start the saw. The blade should not shear the paper but just fold it over. If it shears the paper, back off the adjustment a little at a time until proper adjustment is reached.

BLADE BRUSHES

Blade brushes should be cleaned frequently with kerosene or a good solvent. To take advantage of both rows of bristles, invert blade brushes and install them on the opposite side of the blade.

For best results, replace worn, filled or sticky brushes. When bolting brushes to the mounting angles, be sure wire bristles are turned in the same direction that the blade travels.

BLADE GUIDE ADJUSTMENT

1. Check the blade fit between guide bearings by grasping the blade between the guide and the band wheel.
2. Twist blade back and forth.
3. If too much clearance is found, rotate the eccentric axle (34), page 12, until the bearing (32) is snug against blade and all clearance has been removed.
4. Check guide bearing (32) with thumb by applying force against bearing. It should be possible to rotate the bearing while it is snug against the blade and all clearance has been removed.
5. When looseness has been corrected, make another cut. If the cut is not straight, further adjustment must be made.
6. Place a square on the cut. Determine if the blade is cutting toward or away from the bed or if it is out of square with the vise.
7. If the vise is out of square, correct this by squaring the vise with the slot in the saw bed.
8 If the cut is out of square on the vertical dimension, correct this by moving the guides either away from or towards the saw bed. This is accomplished as follows:

    a. Loosen the 2 cap screws (31), which hold the guide (28) to the guide brackets (23 & 37). Hold the guide from twisting and tap it in the desired direction until the blade is square with the saw bed. To do this:

        1. Place a spacer between the frame wheel guard and the switch box raising the blade teeth just over the saw bed.
        2. Place a machinist's square on the saw bed and move it to touch the body of the saw blade - making sure it does not touch the blade teeth.
        3. Use a feeler gauge, .002" or less, to see that the lade is square from top to bottom. If further adjustment is needed, loosen cap screws on one blade guide and rotate guide so the feeler gauge will not enter at top or bottom. Do not move guide sideways. This may move the blade out of square with the vise. Tighten cap screws.

LUBRICATION

Correct and adequate lubrication is very important to achieve maximum service. It is imperative that all dust and dirt be removed before lubricating.

Marfak Grade "O" Grease, or equivalent, is used in the gear case. Other parts of the saw may be lubricated as follows:

1. Vise adjusting screw. Use a heavy oil or light grease.
2. Keep internal ring gear and pinion well lubricated with a good quality, medium grade, fibrous grease.
3. Wheel ball bearings are sealed and permanently lubricated.
4. For proper motor lubrication, follow the motor manufacturer's instructions.

LUBRICATION SUMMARY

GEAR CASE:
Service interval; inspect after 3 years and annually thereafter.
Lubricant: Mobilgrease XHP220 or equivalent.

VISE SCREW, RING GEAR, PINION: Inspect monthly
Lubricant: Use Anti-seize on vise screw
Use Extreme Pressure Open Gear Lube on ring and pinion gears sparingly.

HELPFUL SUGGESTIONS

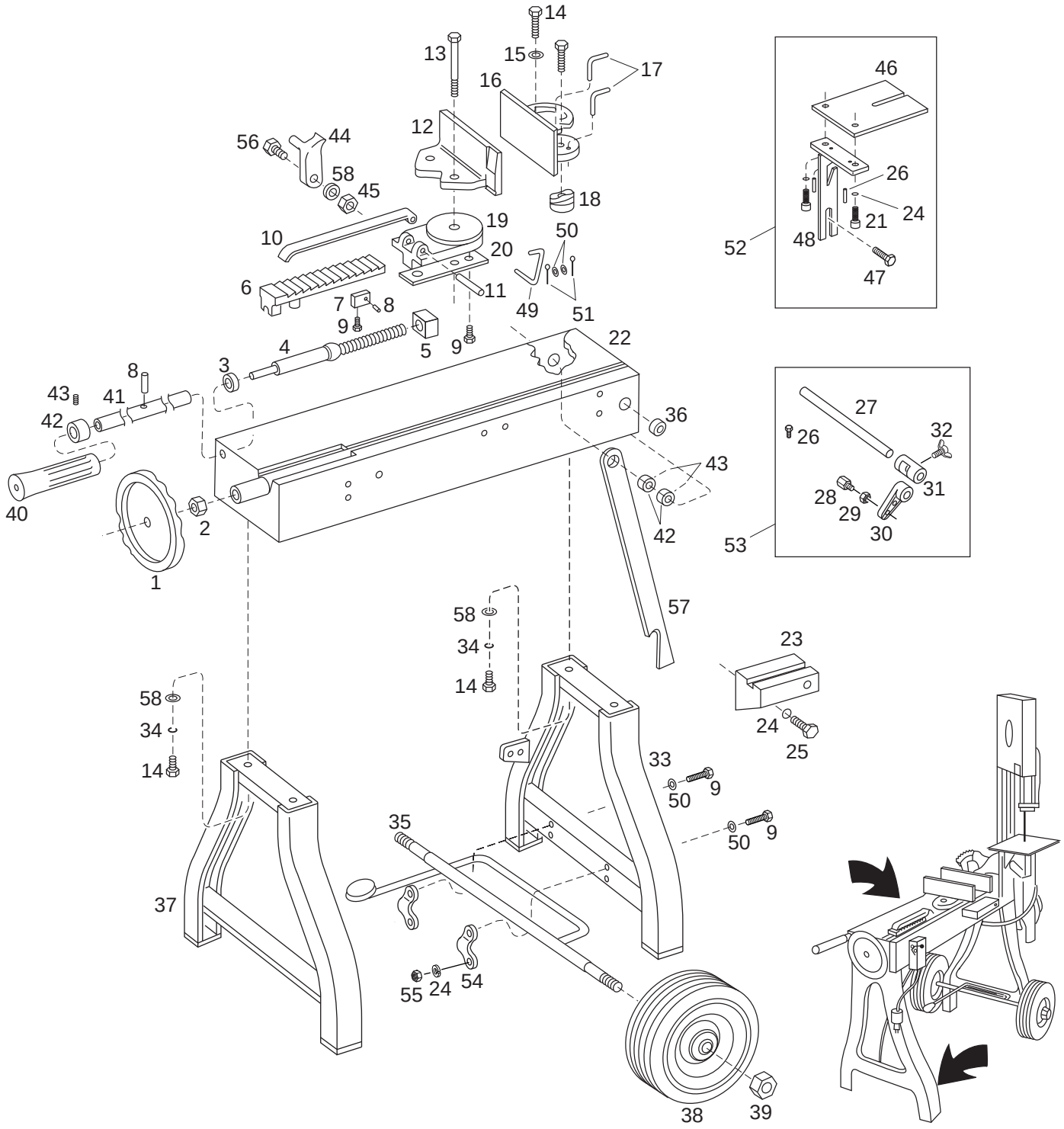
1. To select proper blade, consider the type of material to be cut as well as to its size and shape. The **SELECT-O-CHART** is a handy reference guide.
2. Use the correct blade speed and correct pressure for each type of material cut.
3. Always maintain proper blade tension.
4. Lower saw frame carefully so that the blade will start cutting before full frame feed pressure is applied to the blade.
5. Reduce feeding pressure for the first two or three cuts with a new blade.
6. Keep the adjustable blade guide as close as possible to the material being cut.
7. Keep blade brushes in contact with the blade teeth at all times.

Recommended Service Kit for Insurance Against Downtime

2 years

100406-001	Bearing	6 req'd
100066-002	"V" Belt	1 req'd
M-426	Blade Brush	2 req'd

Bed & Leg Details

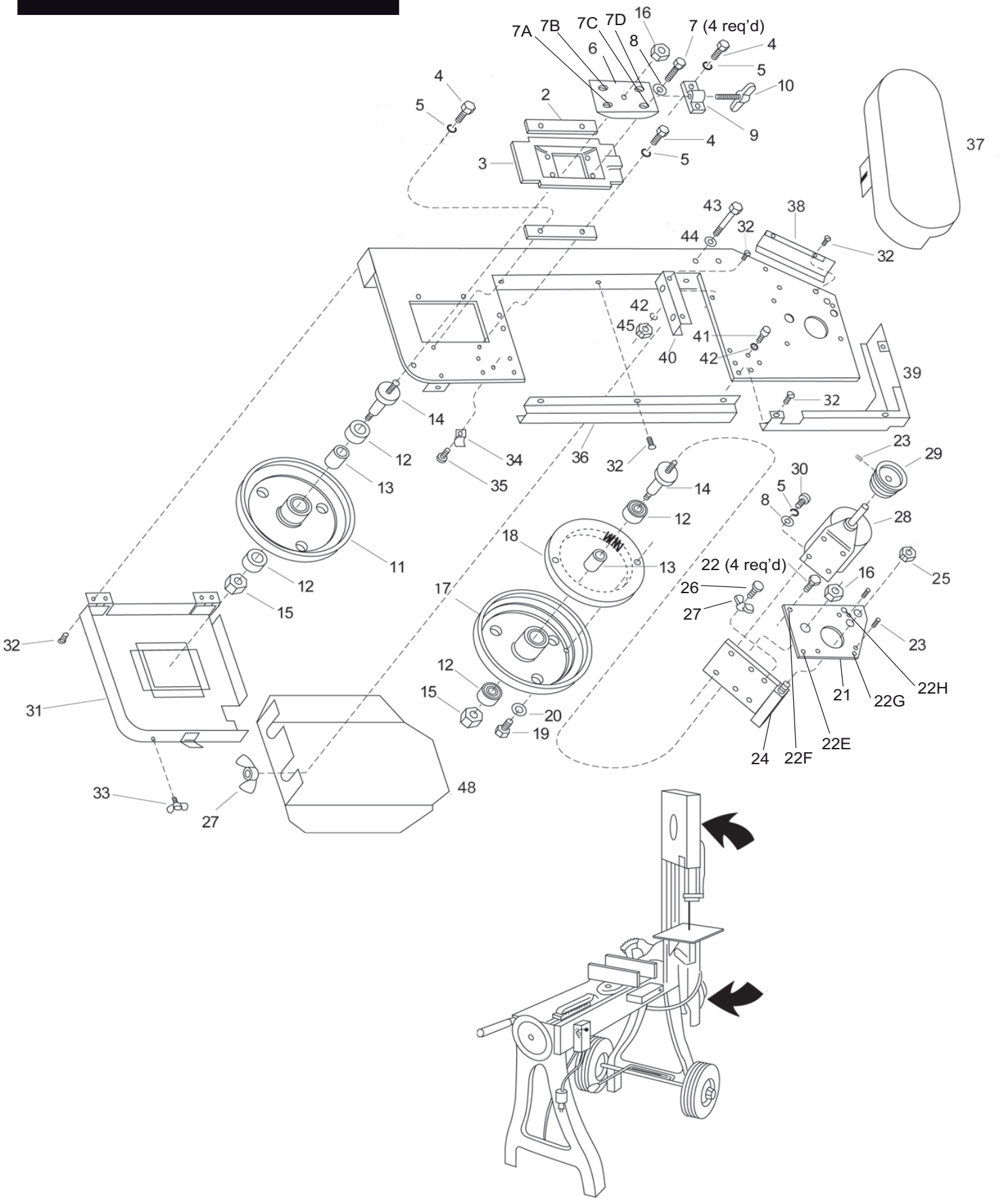


Bed & Leg Details

Always give model number, serial number and part number when ordering parts.

1	A-016	HAND WHEEL
2	100019-008	HEX JAM NUT, 3/4-10
3	100402	THRUST COLLAR
4	102889	VISE SCREW
5	M-061B	VISE SCREW NUT
6	102890	VISE RATCHET
7	102957	CLAMP BLOCK
8	100053-005	ROLL PIN, 3/16 X 1
9	100004-020	CAP SCREW, HH, 5/16-18 X 1-1/4
10	120232	VISE RATCHET DOG
11	100053-002	ROLL PIN, 3/8 X 2-1/2
12	105847	MOVABLE VISE JAW
13	100004-039	CAP SCREW, 1/2-13 X 2-1/2, HEX HEAD
14	100004-037	CAP SCREW, 1/2-13 X 1-1/2, HEX HEAD
15	155107	VISE WASHER
16	A-031	STATIONARY VISE JAW
17	M-065	LOCATING PIN
18	A-151	CLAMP NUT
19	105839	VISE SLIDE BLOCK
20	105840	VISE SLIDE BLOCK GUIDE
21	100004-013	CAP SCREW, 5/16-18 X 5/8, HEX HEAD
22	105845	BED
23	101750	TIP OFF BLOCK
24	100025-002	LOCK WASHER, 5/16
25	100004-063	CAP SCREW, 5/16-18 X 3/4, HEX HEAD
26	100034-003	SET SCREW, 5/16-18 X 3/8
27	A-062	STOP BAR
28	100033-023	SET SCREW, 3/8-16 X 2-1/2
29	100017-003	HEX NUT, 3/8-16
30	A-013	STOP ARM
31	A-036	STOP ARM HOUSING
32	100042-017	THUMB SCREW, 5/16-18 X 1-1/4
33	120209	LEG, DRIVE END
34	100025-005	LOCK WASHER, 1/2
35	102932	WHEEL AXLE
36	100419-007	BUSHING (2 EACH)
37	120210	LEG, IDLE END
38	102938	WHEEL
39	100023-005	SELF-LOCKING NUT, 5/18-11
40	105826	HANDLE GRIP
41	105818	HANDLE ROD
42	102886	COLLAR
43	100034-001	SET SCREW, 1/4-20 X 3/16
44	102887	RATCHET DOG
45	100019-005	HEX JAM NUT, 1/2-13
46	102923	TABLE PLATE
47	100064-001	CAP SCREW, WASHER HEAD, 5/16-18 X 1
48	102924	TABLE SUPPORT
49	102955	STOP LATCH
50	100030-004	FLAT WASHER, 5/16
51	100050-003	COTTER PIN, 1/8 X 1
52	**102922**	**TABLE ASSEMBLY** (INCLUDES ITEMS 21, 24, 26, 47 & 48)
53	**101709**	**STOP STOCK ASSEMBLY** (INCLUDES ITEMS 26-32)
54	120201	AXLE MOUNTING STRAP
55	101300	HEX NUT, 5/16-18
56	100008-010	CAP SCREW, 1/2-13 X 2-1/2, SOCKET HEAD
57	120033	LATCH
58	100030-007	FLAT WASHER, 1/2
	102931	WHEEL AND HANDLE KIT FOR OLDER SAWS INCLUDES 35,38,40-42

Wheel & Frame Details



Wheel & Frame Details

Always give model number, serial number and part number when ordering parts.

1	102874	FRAME
2	A-046	WHEEL SLIDE BLOCK
3	A-012	SLIDE BLOCK
4	100004-013	CAP SCREW, 5/16-18 X 5/8, HEX HEAD
5	100025-002	LOCK WASHER, 5/16
6	A-010	WHEEL ADJUSTING BLOCK
7	100004-019	CAP SCREW, 5/16-18 X 1-1/8, HEX HEAD
8	102360	SPACER
9	A-009	WING SCREW BLOCK
10	102896	WING SCREW
11	A-017B	BAND WHEEL, IDLE END
12	100414-003	BEARING
13	105415	SPACER
14	105420	WHEEL AXLE
15	100019-011	HEX JAM NUT, 5/8-18
16	100065-007	HEX NUT, 5/8-18
17	A-017A	BAND WHEEL, DRIVE END
18	A-086	RING GEAR
19	100004-053	CAP SCREW, 1/4-20 X 1, HEX HEAD
20	100025-001	LOCK WASHER, 1/4
21	102900	WHEEL PLATE
22	100004-063	CAP SCREW, 5/16-18 X 3/4, HEX HEAD
23	100034-003	SET SCREW, 5/16-18 X 3/8
24	102903	MOTOR SUPPORT
25	100023-005	SELF LOCKING NUT, 5/8-11
26	100042-010	THUMB SCREW
27	100024-001	WING NUT, 1/4-20
28	100846-016	1/2 HP MOTOR 115/60/1
	100846-010	3/4 HP MOTOR 220/60/3 (OPTION)
29	101238	PULLEY MOTOR
30	100004-012	CAP SCREW, 5/16-19 X 1/2, HEX HEAD
31	102876	WHEEL GUARD
32	100000-017	MACHINE SCREW, 10-32 X 1/4
33	100063	THUMB SCREW
34	100218-010	CLAMP
35	100000-025	MACHINE SCREW, 1/4-20 X 1/2
36	102877	BLADE GUARD
37	105530	BELT GUARD
38	105811	ANGLE WHEEL GUARD
39	105810	WHEEL GUARD, DRIVE END
40	102879	WHEEL GUARD SUPPORT
41	100004-026	CAP SCREW, 3/8-16 X 7/8, HEX HEAD
42	100025-003	LOCK WASHER, 3/8
43	100004-067	CAP SCREW, 3/8-16 X 3, HEX HEAD
44	100029-004	FLAT WASHER, 3/8
45	100017-003	HEX NUT, 3/8-16
46	**105423**	**WHEEL ASSEMBLY COMPLETE**, **IDLE END** (INCLUDES ITEMS 11-14)
47	**105422**	**WHEEL ASSEMBLY COMPLETE**, **DRIVE END** (INCLUDES ITEMS 12-15, 17-20)
48	105615	DRIVE WHEEL GUARD
49	105856	BLADE GUARD
50	**105858**	**WHEEL AND BLADE GUARD ASSEMBLY** (INCLUDES ITEMS 31 AND 49)

WHEEL PITCH ADJUSTMENT

If the blade runs too low on wheels, it may be because of too much blade tension. Loosen the blade by turning the “T” handle (10) counterclockwise (CCW). The blade must be reasonably tight.
If this adjustment does not correct the problem, adjust the wheel pitch. Usually, adjusting the idler wheel will correct the problem. However, if it doesn’t, both idler and drive wheels will have to be adjusted as follows:

1. Loosen blade tension until the blade is slack by turning the “T” handle CCW.
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If the blade runs back to the flange of the idler wheel and not on the drive wheel, make the following adjustment:

1. Loosen the 2 cap screws, 22E and 22F, at the motor end of the wheel plate.
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3. Tighten all four cap screws.
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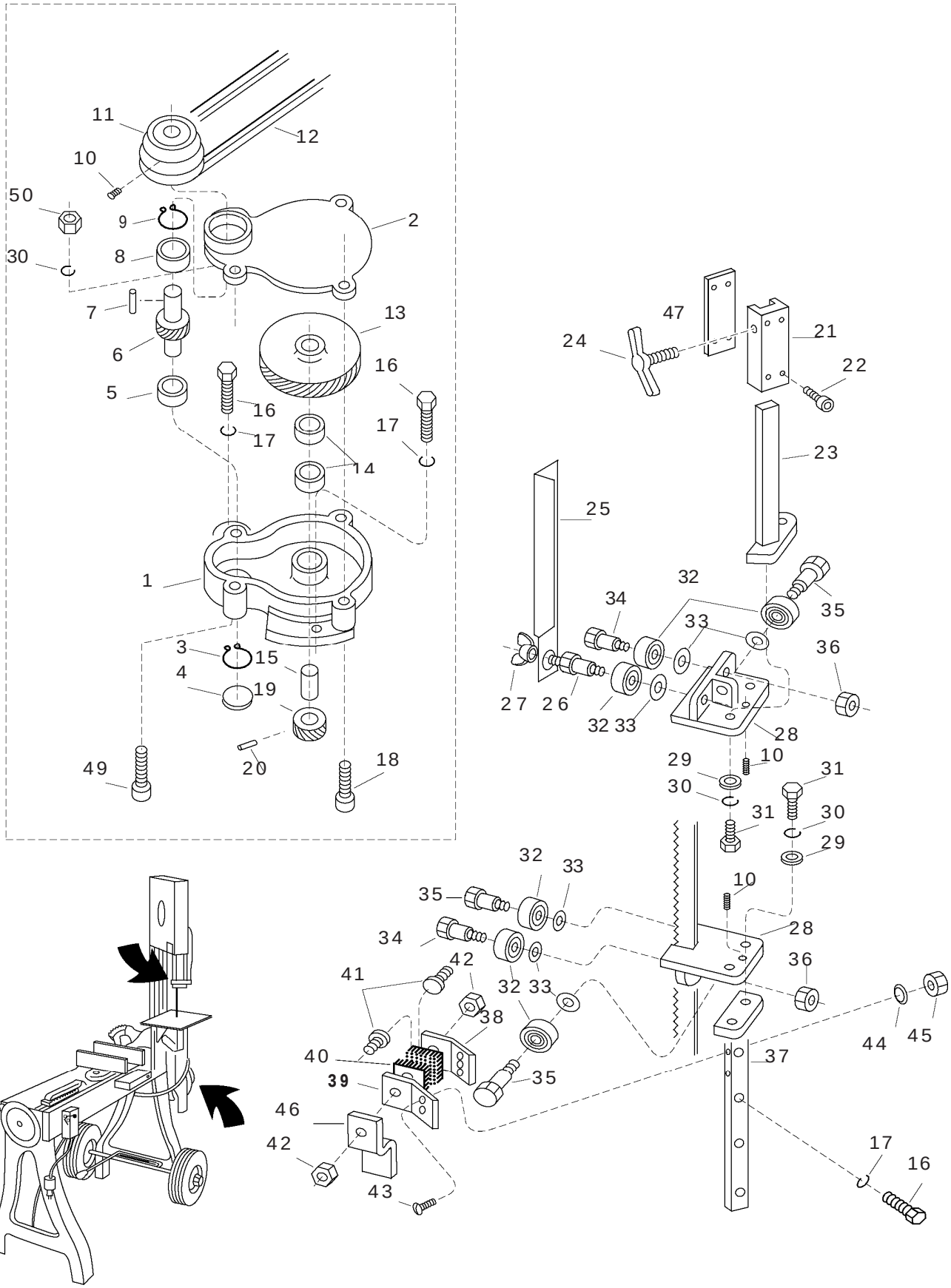
CAUTION: Too much pitch will wear the wheel flanges and roll over the back of the blade! This problem can usually be determined by the noise of the blade rubbing against the flange. To check further, place a piece of paper between the blade and the wheel. Start the saw. The blade should not shear the paper but just fold it over. If it shears the paper, back off the adjustment a little at a time until proper adjustment is reached.

Blade Guide & Gear Box Details



Blade Guide & Gear Box Details

Always give model number, serial number and part number when ordering parts.

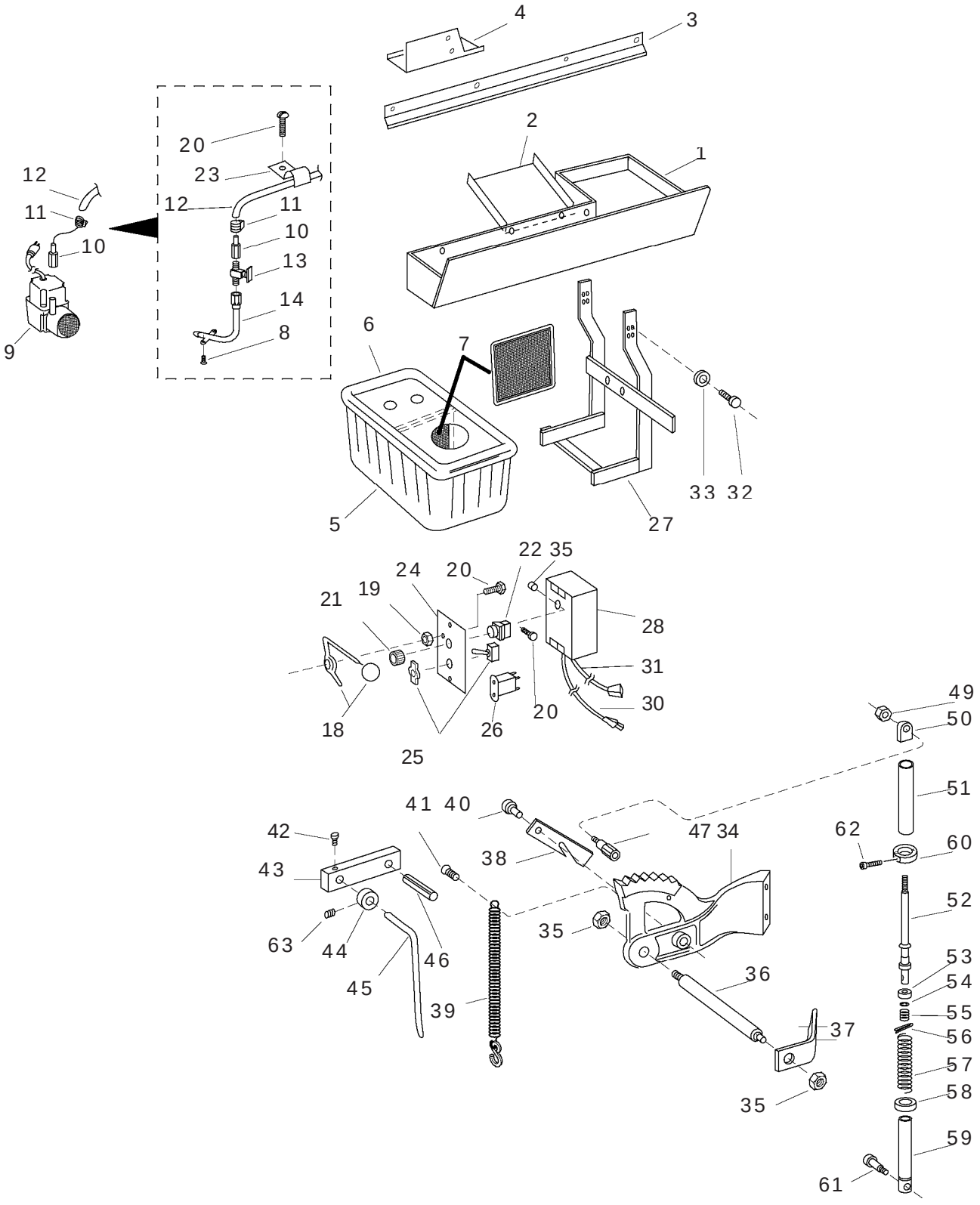
1	M-013	GEAR CASE
2	101291	GEAR CASE COVER
3	100068-001	SNAP RING, 3 REQ'D
4	100072-001	EXPANSION PLUG
5	100404-002	BALL BEARING
6	101343	PULLEY SHAFT & PINION
7	100056-001	KEY - 3/16 X 3/16 X 1
8	100414-003	BALL BEARING
9	100068-002	SNAP RING
10	100034-003	SET SCREW - 5/16-18 X 3/8 (NOT USED AFTER SN 23053)
11	101292	PULLEY
12	100066-002	"V" BELT
13	101286	DRIVEN GEAR
14	100404-001	BALL BEARING
15	101644	DRIVE SHAFT
15A	100056-001	KEY FOR DRIVE SHAFT - 1/8 X 1/8 X 3/4 (NOT ILLUSTRATED)
16	100004-017	CAP SCREW - 5/16-18 X 7/8 - HEX HEAD
17	100025-002	LOCK WASHER - 5/16
18	100008-061	CAP SCREW - 1/4-20 X 1-1/2 - SOCKET HEAD
19	101645	DRIVE PINION
20	100053-005	ROLL PIN - 3/16 X 1
21	JK-057	SLIDE BLOCK
22	100008-003	CAP SCREW - 1/4-20 X 3/4 - SH
23	102908	GUIDE BRACKET BEFORE S/N11751
	105832	GUIDE BRKT IE S/N 11752-11884
	105853	GUIDE BRACKET - IDLE END (SN 11885-23616)
	120018	GUIDE BRACKET - IDLE END (AFTER SN 23617)
24	102898	WING SCREW
25	105856	MOVEABLE BLADE GUARD
26	105860-001	ROLLER AXLE - IDLE END
27	100024-005	WING NUT - 1/4-20
28	101297	ROLLER SUPPORT
29	100029-002	FLAT WASHER - 1/4
30	100025-001	LOCK WASHER - 1/4
31	100004-053	CAP SCREW - 1/4-20 X 1 - HEX HEAD
32	100406-001	BALL BEARING
33	100097-001	FLAT WASHER
34	101299	ECCENTRIC ROLLER AXLE
35	101298	ROLLER AXLE
36	101300	ECCENTRIC AXLE NUT
37	102912	GUIDE BRACKET DE < S/N 11751
	105830	GUIDE BRACKET - DRIVE END (SN -11752 - 23616)
	120017	GUIDE BRACKET - DRIVE END (AFTER SN 23617)
38	105842	BLADE BRUSH ANGLE-LONG BEFORE S/N 23617
	105842-001	BLADE BRUSH ANGLE-LONG AFTER S/N 23617
39	105844	BLADE BRUSH ANGLE - SHORT BEFORE SN 23617
	105844-001	BLADE BRUSH ANGLE-SHORT AFTER SN 23617
40	M-426	BLADE BRUSH
41	100073-003	WELD BOLT - 1/4-20 X 1/2
42	100017-001	HEX NUT - 1/4-20
43	100013-011	CAP SCREW BUTTON HEAD 10-32 X 1-1/4-
44	100027-003	LOCK WASHER #10
45	100147-004	KEPS NUT - 10-32
46	102949	STATIONARY BLADE GUARD
47	105885	SLIDE BLOCK SHIM
49	100000-047	ROUND HD MACH SCR 1/4-20 X 2"
	102901	**GEAR BOX ASSEMBLY** - INCLUDES ITEMS 1-9 & 13-20
	101643	**DRIVE SHAFT & PINION** - INCLUDES ITEMS 15, 19 & 20
	105841	**BLADE BRUSH ASSEMBLY INSIDE** - INCLUDES ITEMS 38, 41 & 42
	105843	**BLADE BRUSH ASSEMBLY OUT SIDE** - INCLUDES ITEMS 39-45
	101322-001	**ROLLER SUPPORT ASSEMBLY - DRIVE 1/2"** - INCLUDES ITEMS 28 & 32-36
	105591-001	**ROLLER SUPPORT ASSEMBLY - IDLE 1/2"** - INCLUDES ITEMS 26, 28, 32-36

3/4" Blade Guide Option

101322-002 Roller Support Assy Drive 3/4"
105591-002 Roller Support Assy Idle 3/4"

32	100416-001	Side Bearing	4 req'd
26	120234	Roller Axle	1 req'd
35	B-043	Roller Axle	1 req'd
34	B-109	Eccentric Roller Axle	2 req'd

Coolant, Switch & Dash Pot Details



Coolant, Switch & Dash Pot Details

Always give model number, serial number and part number when ordering parts.

1	120064	CHIP PAN
2	120041	SPLASH GUARD
3	120231	DRIP EDGE
4	120230	DRIP PAN
5	120160-001	COOLANT TANK
6	120162	COOLANT TANK COVER
7	101565-009	SCREEN
8	100000-017	ROUND HEAD MACHINE SCREW
9	100249-010	COOLANT PUMP
10	102617	ADAPTER
11	100219-001	HOSE CLAMP
12	100220-020	COOLANT HOSE, 3/8 X 96”
13	105780	VALVE (USED AFTER SN 23053)
14	102984	COOLANT NOZZLE ASSEMBLY
16	**120229**	**SWITCH BOX ASSEMBLY** (INCLUDES ITEMS 18-31 LESS 27)
17	**120228**	**SWITCH ASSEMBLY** (INCLUDES ITEMS 18-26)
18	105584-002	SWITCH LEVER WITH KNOB
19	100017-001	HEX NUT, 1/4-20
20	100004-053	CAP SCREW,1/4-20 X 1, HEX HEAD
21	100851-001	PUSH BUTTON GUARD
22	100805-001	RESET SWITCH
23		CLAMP
24	105959	SWITCH BOX COVER
25	100674-006	TOGGLE SWITCH
26	100866	RELAY
27	120211	COOLANT TANK BRACKET
28	105889	SWITCH BOX
30	105961	CORD & PLUG
31	100755-001	CORD SET, 115V FOR COOLANT
32	100004-018	CAP SCRW, 5/16-18 X 1, HEXHEAD
33	100030-004	FLAT WASHER, 5/16
34	120217	FRAME RATCHET (USED AFTER SN 23616)
	105828	FRAME RATCHET (USED UP TO SN 23616)
35	100017-007	HEX NUT, 5/8-11
36	102885	PIVOT BAR
37	120012	FRAME PIVOT BRACKET (USED AFTER 23616)
	105829	FRAME PIVOT BRACKET (USED UP TO SN 23616)
38	120134	LATCH
39	105881	SPRING WITH “S” HOOK
40	102895	STUD
41	101311	FRAME SPRING ANCHOR
42	100034-025	SET SCREW, 1/4-20 X 3/8
43	120133	STOP BLOCK WITH SET SCREW
44	M-107	COLLAR WITH SET SCREW
45	120135	RELEASE LEVER
46	100053-010	ROLL PIN, 3/8 X 1-1/2
47	M-155	DASH POT UPPER STUD
48	N/A	
49	100017-003	HEX NUT, 3/8-16
50	M-144	PISTON ROD END
51	101524	OUTSIDE TUBE
52	101527	PISTON ROD
53	M-166	CUP LEATHER
54	100070	CUP WASHER
55	M-148	SPRING
56	100050-002	COTTER PIN, 3/32 X 3/4
57	102918	SPRING
58	101777	WASHER
59	101523	INSIDE TUBE
60	101776	CLAMP WITH BOLT
61	M-147	LOWER STUD
62	100000-025	MACHINE SCREW, 1/4-20 X 1/2, ROUND HEAD
63	**M-301**	**DASH POT ASSEMBLY** (INCLUDES ITEMS 50-61, LESS 59 & 60)
64	**101526**	**PISTON ROD ASSEMBLY COMPLETE** (INCLUDES ITEMS 52-56)
	098049-001	DASH POT OIL (FILL TO 1” FROM TOP)

Coolant System for Field Installation order Part # 120218

This kit includes all parts to convert a Model 58BD to 58BW

58B Service Parts Changes

ELECTRICALS

Before 17240 to 21035	100670-1 (Switch Only) or 102888 Switch Box Assembly	
Beginning 20855	105869	Safe Start Plus and Cord Set
Beginning 21036	120228	Switch Assembly & 100846-16 Motor

BLADE GUIDES

To Serial Number 11751	102858	Frame Ratchet
	102908	Guide Bracket Idle End
	102912	Guide Bracket Drive End
	101322	Roller Guide Assembly
From Serial Number 11752	105828	Frame Ratchet
	105832	Idle Guide Bracket End
	105830	Guide Bracket Drive End
	101322	Roller Guide Assembly

BLADE GUARDS

To Serial Number 11885	102963	Blade Guard Idle End
	102949	Blade Guard Drive End
	102961	Pivot Rod

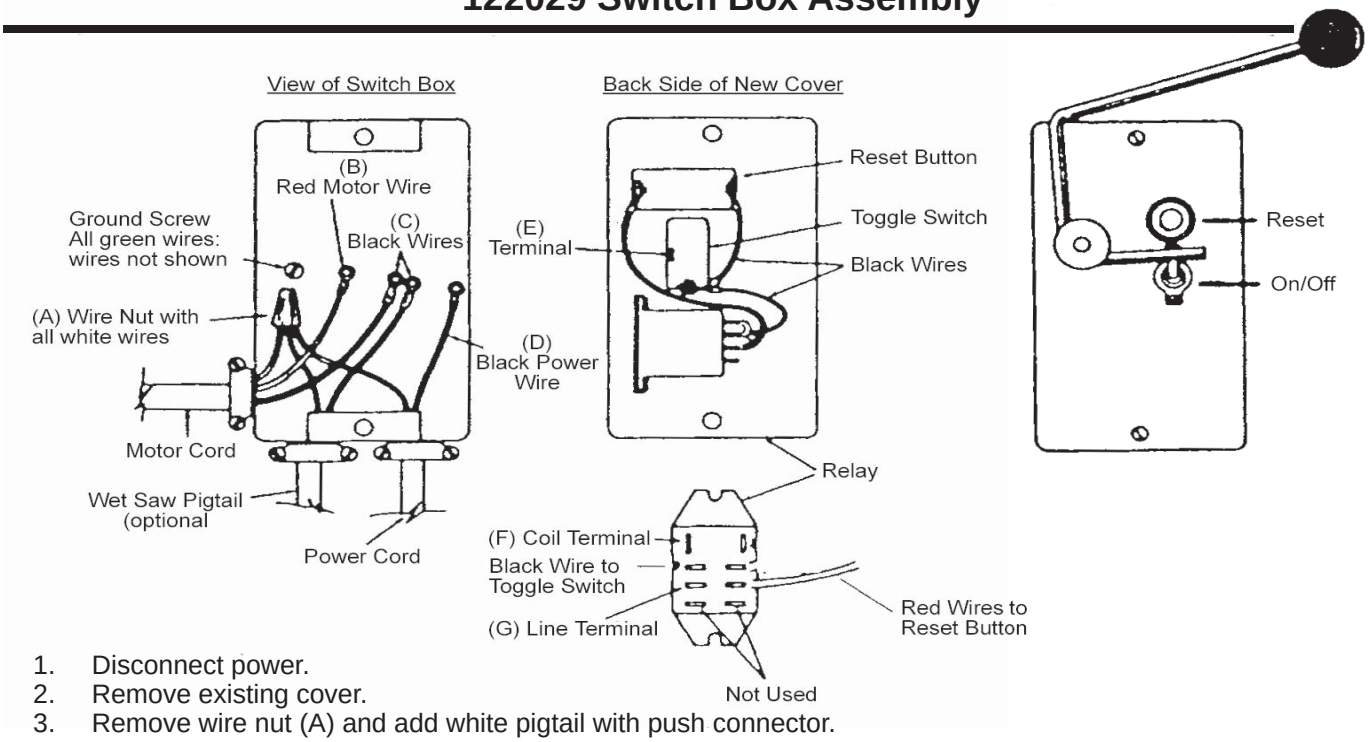
Current Idle Wheel Guard Assembly could replace old assembly using the following parts:

105868	Idle Wheel Guard Assembly
105860	Roller Axle

WHEEL KITS

To Serial Number 22020	102931	Wheel and Handle Kit for field installation

122029 Switch Box Assembly



1. Disconnect power.
2. Remove existing cover.
3. Remove wire nut (A) and add white pigtail with push connector.
4. Cut off red motor wire (B) from both ends of motor cord.
5. Connect black wire (C) from motor and wet saw pigtail (C) to toggle switch terminal (E).
6. Cut off existing terminal on black power wire (D) and replace with push terminal supplied.
7. Connect new white pigtail to relay coil terminal (F).
8. Connect black power wire (D) with new push terminal to relay line terminal (G)
9. Install cover on switch box.
10. Saw operation. Push reset button only after loss of power. Normal saw operation is by toggle switch.

Trouble Shooting

For Greater Service and Efficiency
Careful Operation - Blade Consideration

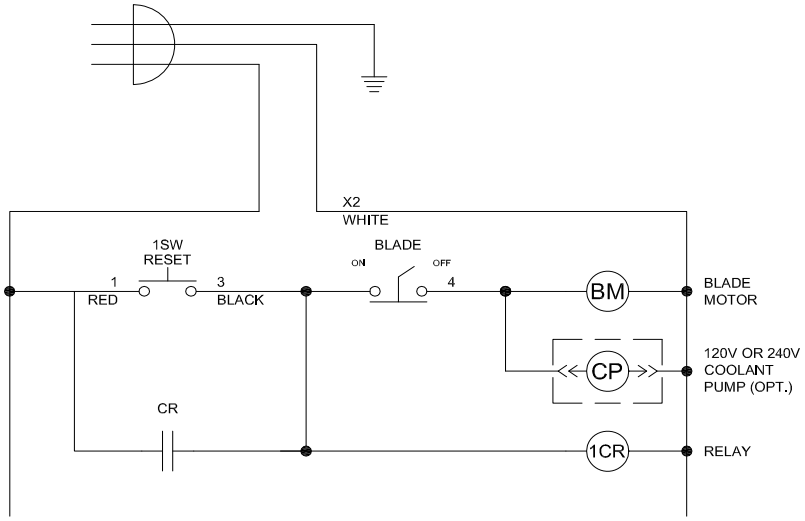
Cutting out of line	*Too heavy a feed or worn blade*	Reduce feed rate by adjusting frame weight or replace blade. Replace worn guide bearings when they begin to show excessive wear
	Guides in wrong position	Set as close to work as possible
	Guides out of alignment	Follow adjustment instructions
	Set worn on one side of blade	Keep brushes clean. Avoid teeth rubbing in cut by applying enough weight so that each tooth is cutting a good chip
	Starting cut on odd shape where blade does not contact flat surface	Retard feed until blade has a good start in the material
Stripping teeth	*Blade teeth too coarse*	Be sure that two or more blade teeth are in contact with material being cut
	Hard spots on material	Rotate stock, if possible. Do not put new blade in cut at same angle
Breaking	*Guides out of alignment*	Follow adjustment instructions.
	Blade twisting	Adjust guides as close to work as possible. Be sure material being cut is held firmly
	Lack of blade tension	Always keep blade tight
	Dash Pot malfunction	Check hydraulic fluid level and/or condition of cup leather
Excessive wear	*Blade speed too fast.*	Follow recommended cutting speeds
Blade running off wheel	*Lack of blade tension*	Always keep blade tight
	Improper wheel pitch adjustment	See instructions for wheel pitch adjustment

Always use a light feed on new blades!

ELECTRICAL SCHEMATIC

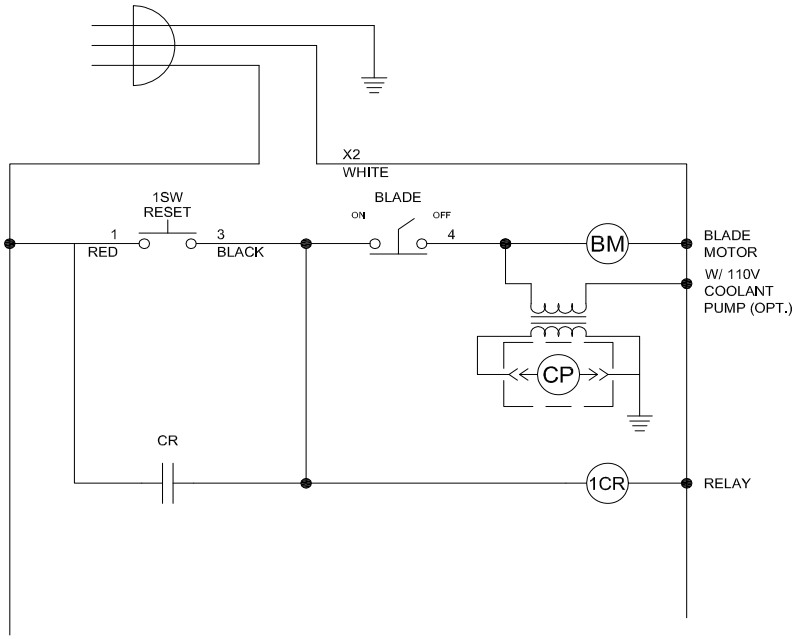
120V / 240V

(CURRENT VERSION)



240V

(PREVIOUS VERSION)



Wellsaw® Select-O-Chart

To assist in selecting the right blade and the right speed for your job!

Speed = Suggested blade speed in feet-per-minute

Feeding pressure: L = light, **M =** medium, **H =** heavy • **T =** teeth per inch

Stock Dimensions Tooth Pitch	Up to 1" 10/14, 8/12		From 1" - 3" 6/10,8/12,5/8		From 3" - 6" 5/8,4/6,3/4,3 Sab.		Over 6" 3/4,2/3,2 Sab., 1 Tooth, 3/4" T.S.	
Material (Annealed)	**Blade Spee (SFPM)**	**Cutting Rate (SIPM)**	**Blade Spee (SFPM)**	**Cutting Rate (SIPM)**	**Blade Spee (SFPM)**	**Cutting Rate (SIPM)**	**Blade Spee (SFPM)**	**Cutting Rate (SIPM)**
Carbon Steels:								
1008-1013	250	8 - 10	275	9 - 12	280	12 - 15	250	9 - 12
1015-1018	250	8 - 10	275	9 - 12	250	12 - 15	230	9 - 12
1048-1065	200	5 - 7	200	5 - 7	175	8 - 10	150	6 - 8
1065-1095	200	4 - 6	200	5 - 7	150	6 - 8	120	5 - 8
Free Machining Steels:								
1108-1111	300	9 - 11	330	12 - 14	275	13 - 15	220	11 - 14
1112-1113	300	8 - 11	330	11 - 13	275	12 - 15	220	12 - 15
1115-1132	300	7 - 10	330	10 - 13	275	13 - 16	220	11 - 14
1137-1151	275	6 - 8	250	8 - 10	250	8 - 11	200	7 - 10
1212-1213	300	8 - 10	320	11 - 13	300	13 - 15	255	11 - 14
Manganese Steels:								
1320-1330	250	5 - 7	250	5 - 8	200	8 - 11	175	7 - 10
1335-1345	250	5 - 7	225	5 - 7	200	7 - 9	175	5 - 8
Nickel Steels:								
2317	270	4 - 5	270	4 - 6	250	5 - 7	230	4 - 6
2330-2345	220	2 - 3	220	3 - 5	190	3 - 5	170	3 - 5
2512-2517	200	2 - 3	200	3 - 5	160	4 - 6	150	4 - 6
Nickel Chrome Steels:								
3115-3130	260	4 - 6	260	5 - 7	230	5 - 7	225	5 - 7
3135-3150	220	4 - 6	200	4 - 7	180	6 - 8	150	5 - 8
3310-3315	200	3 - 4	180	4 - 5	180	5 - 7	160	4 - 6
Molybdenum Steels:								
4017-4024	300	3 - 5	270	4 - 7	250	6 - 8	220	5 - 8
4032-4042	300	3 - 5	270	4 - 7	250	6 - 8	230	5 - 8
4047-4068	250	3 - 5	220	4 - 6	200	5 - 7	180	3 - 5
Chrome Moly Steels:								
4130-4140	280	4 - 6	250	5 - 8	250	8 - 10	220	6 - 8
4142-4150	230	3 - 5	200	4 - 6	200	5 - 7	170	4 - 6
Nickel Chrome Moly Steels:								
4317-4320	250	3 - 5	225	4 - 6	200	5 - 7	170	4 - 6
4337-4340	230	3 - 4	200	4 - 5	200	4 - 6	170	4 - 5
8615-8627	250	4 - 5	230	6 - 7	230	6 - 8	200	6 - 7
8630-8645	250	3 - 5	230	4 - 6	230	5 - 7	180	4 - 6
8647-8660	220	2 - 4	200	3 - 5	200	4 - 6	150	3 - 5
8715-8750	250	3 - 5	220	4 - 6	220	5 - 7	180	4 - 6
9310-9317	200	1 - 3	160	2 - 3	160	2 - 4	150	2 - 3
9437-9445	250	4 - 5	230	4 - 5	230	5 - 6	180	4 - 5
9747-9763	250	2 - 4	230	3 - 5	200	4 - 6	180	3 - 5
9840-9850	240	4 - 5	220	4 - 6	200	5 - 7	180	4 - 6
Nickel Moly Steels:								
4608-4621	250	3 - 5	220	5 - 6	220	6 - 7	200	5 - 6
4640	220	3 - 5	200	4 - 6	200	5 - 7	170	4 - 6
4812-4820	200	3 - 5	180	3 - 5	180	4 - 6	160	4 - 5
Chrome Steels:								
5045-5046	280	4 - 6	250	5 - 7	250	8 - 10	200	7 - 8
5120-5135	280	4 - 6	250	6 - 7	240	7 - 8	180	5 - 8
5140-5160	250	3 - 5	230	4 - 6	230	5 - 7	200	4 - 6
50100-52100	180	2 - 4	160	3 - 5	150	4 - 6	100	3 - 5
Chrome Vanadium Steels:								
6117-6210	225	4 - 5	225	5 - 7	200	6 - 8	170	5 - 7
6145-6152	225	3 - 4	200	4 - 5	200	5 - 6	150	4 - 5
Silicon Steels:								
9255-9260	200	2 - 4	180	3 - 5	180	3 - 5	150	3 - 5
9261-9262	200	1 - 3	160	2 - 3	160	2 - 4	150	2 - 3

Stock Dimensions Tooth Pitch	Up to 1" 10/14, 8/12		From 1" - 3" 6/10,8/12,5/8		From 3" - 6" 5/8,4/6,3/4,3 Sab.		Over 6" 3/4,2/3,2 Sab., 1 Tooth, 3/4" T.S.	
Material (Annealed)	Blade Spee (SFPM)	Cutting Rate (SIPM)	Blade Spee (SFPM)	Cutting Rate (SIPM)	Blade Spee (SFPM)	Cutting Rate (SIPM)	Blade Spee (SFPM)	Cutting Rate (SIPM)
High Speed Tool Steels:								
T-1, T-2	130	1 - 2	110	2 - 3	100	2 - 4	90	2 - 3
T-4, T-5	110	1 - 2	100	1 - 2	90	2 - 3	80	1 - 2
T-6, T-8	110	1 - 2	100	1 - 2	80	1 - 2	70	1 - 2
T-15	80	1	80	1	70	1	50	1
M-1	150	1 - 3	140	2 - 4	130	3 - 5	110	2 - 4
M-2, M-3	120	1 - 2	110	2 - 3	100	3 - 4	80	2 - 3
M-4, M-10	100	1 - 2	90	1 - 2	80	1 - 3	60	1 - 2
Die Steels:								
A-2,	210	2 - 3	200	3 - 4	190	3 - 4	180	2 - 3
D-2, D-3	110	1 - 2	100	1 - 2	90	1 - 2	80	1 - 2
D-7	90	1	80	1	70	1	70	1
O-1, O-2	240	3 - 4	210	4 - 5	190	5 - 6	170	4 - 5
O-6	230	3 - 4	200	4 - 6	180	5 - 7	150	4 - 6
Hot Work Steels:								
H-12, H-13, H-21	150	2 - 4	125	3 - 5	125	2 - 4	125	2 - 4
H-22, H-24, H-25	150	1 - 3	125	1 - 3	125	1 - 3	125	1 - 3
Shock Resisting Tool Steels:								
S-1	220	2 - 4	180	3 - 5	165	3 - 5	150	2 - 4
S-2, S-5	170	1 - 3	150	2 - 4	120	2 - 4	100	1 - 3
Special Purpose Tool Steels:								
L-6	200	2 - 4	180	3 - 5	170	3 - 5	150	2 - 4
L-7	200	2 - 4	180	3 - 5	150	3 - 5	100	2 - 4
Stainless Steels:								
201, 202, 302, 304	120	2 - 4	100	2 - 4	100	2 - 4	100	1 - 3
303, 303F	140	2 - 4	120	2 - 4	100	3 - 5	100	2 - 4
308, 309, 310, 330	90	1	70	1	60	2	60	1
314, 316, 317	90	1	80	1	70	2	60	1
321, 347	130	1 - 3	110	1 - 3	100	2 - 4	80	1 - 3
410, 420, 420F	150	1 - 3	130	1 - 3	120	2 - 4	100	1 - 3
416,430F	200	3 - 5	180	4 - 6	170	5 - 7	150	4 - 6
430, 446	100	1 - 3	90	2 - 4	80	2 - 4	80	1 - 3
440 A,B,C	120	1 - 3	10	1 - 3	90	2 - 4	70	1 - 3
440F, 443	150	1 - 3	130	1 - 3	120	2 - 4	100	1 - 3
17-4PH, 17-7PH	100	2 - 3	90	2 - 4	80	3 - 4	80	2 - 3
A-7	100	1 - 2	100	1 - 2	100	2 - 3	100	2 - 3
Beryllium Copper #25								
BHN 100-120	350	4 - 6	300	5 - 7	275	6 - 8	225	5 - 7
BHN 220-250	250	2 - 4	225	3 - 5	200	4 - 6	175	3 - 5
BHN 310-340	200	1 - 2	160	1 - 2	140	2 - 3	100	1 - 2
Nickel Base Alloys:								
Monel	100	1 - 2	100	1 - 2	80	1 - 2	60	1
R Monel	140	2 - 3	140	2 - 4	125	2 - 4	75	2 - 3
K Monel	100	1	80	1	60	1	60	1
KR Monel	100	1 - 3	90	1 - 3	80	1 - 3	60	1 - 2
Inconel	110	1 - 2	100	1 - 3	80	1 - 3	80	1 - 2
Inconel X	90	1	80	1	70	1	60	1
Hastelloy A	120	1 - 2	100	1 - 2	85	2 - 3	75	1 - 2
Hastelloy B	110	0 - 1	100	1 - 2	90	1 - 2	75	0 - 1
Hastelloy C	100	0 - 1	90	0 - 1	70	0 - 1	60	0 - 1
Rene 41	90	1	90	1	90	1 - 2	90	1 - 2
Udimit	100	1	90	1 - 2	90	1 - 2	90	1 - 2
Waspalloy	90	1	90	1 - 2	90	1 - 2	90	1 - 2
Titanium	100	1 - 2	100	2 - 3	100	2 - 3	100	2 - 3
Titanium Alloys:								
TI-4AL-4MO Alpha Beta Alloy	100	0 - 1	90	0 - 1	80	0 - 1	70	0 - 1
TI-140A 2CR-2MO	100	0 - 1	90	0 - 1	80	0 - 1	60	0 - 1
TI-150A	100	0 - 1	90	0 - 1	80	0 - 1	60	0 - 1
MST-6AL-4V	100	0 - 1	90	0 - 1	80	0 - 1	60	0 - 1
99% Pure Titanium	100	0 - 1	90	0 - 1	80	0 - 1	60	0 - 1

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Wellsaw®

Made In The USA

Quality Metal Cutting Bandsaws

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